

Program Approval Process

Regents Policy

The State Education Department

The University of the State of New York

Albany, NY 12234

TO: The Honorable the Members of the Board of Regents

FROM: James A. Kadamus

Committee: Full Board

Title of Item: Career and Technical Education (CTE) Proposal

Date of Submission: January 24, 2001

Proposed Handling: Action

Rationale for Item: Modification of Regents Policy on Graduation Requirements

Strategic Goal: Goals 1

Summary:

During the past 18 months, the Regents and the Department have carried out a series of steps to create policies that will encourage and help students complete a quality career and technical education at the same time that they achieve higher academic standards. To do that, we assembled outstanding and diverse groups of experts from throughout the state and nation. Their deliberations, which included statewide focus forums, resulted in a proposal for the Regents in June 2000. At that point, the Regents authorized state wide release for an extensive period of public engagement. Over 40,000 persons received the proposal for comment. Other activities included a public policy conference in September, several regional conferences, and an analysis of comments from numerous education, parent, business, and other groups.

IN December, the Regents received a revised proposal which addressed a variety of concerns and incorporated ideas from the New York State United Teachers, the District Superintendents, the community of career and technical education providers, the School Administrators Association, of New York and many other individuals and the groups. This revised proposal seeks to accomplish the following:

- Solve the question of time, allowing students to pursue a career and technical education in courses that also offer academic skills and content;
- Increase flexibility in both coursework and overall program for both students and schools;
- Foster high quality career and technical education programs through the creation of a program approval process;
- Create a work skills employability profile for each student to enhance employability; and
- Encourage students to pursue a technical designation on the Regents diploma and Regents diploma with advanced designation.

This proposal now resolves the needs and concerns voiced by many people. Numerous education and other groups have endorsed it.

VOTED: That the Board of Regents approves the attached proposal on career and technical education which modifies the graduation requirements adopted in December 1997 and directs Department staff to develop proposed amendments to Commissioner's Regulations in order that the program approval process for career and technical education programs will be in place beginning with the 2001-2002 school year.

Proposal for Regents Policy on Career and Technical Education

Goal

To provide quality career and technical education (CTE) programs in schools and BOCES as a first-choice option for students to achieve State learning standards.

Proposal

This proposal amends the Board of Regents action taken in December 1997 by creating a process of program approval for career and technical education programs which will allow flexibility in the attainment of graduation requirements, and students who meet all requirements will earn a technical endorsement on their Regents diploma.

The proposal addresses the question of time – allowing students to take integrated or specialized courses that combine academic and career/technical skills and content. In addition, this proposal will promote and upgrade career and technical education programs in the State and stimulate continuous program improvement. Students with a wide range of interests, career goals and abilities will have access to career and technical programs which will meet their academic and technical educational and future goals. These students will take and pass all required Regents examinations, or alternatives approved by the State Assessment Panel, at the same level of performance as required of all students in New York and will be eligible for component testing when available. The proposal includes the following elements:

- a program approval process;
- flexibility in the delivery of core academic courses;
- a work skills employability profile;
- technical assessments based on industry standards; and
- technical endorsement on the Regents diploma and Regents diploma with advanced designation.

Proposal Elements

Program Approval Process

Criteria for the career and technical education program approval process require applicants to have evidence of:

- quality technical and academic curriculum, including integrated English language arts, mathematics, science, economics, and government and technical instruction;
- faculty with State certification in appropriate academic and/or technical fields;
- technical assessments that certify students meet current industry standards;
- post secondary articulation agreements;
- work-based learning experiences for students; and
- data on student progress and performance in order to evaluate their success on Regents examinations or alternatives approved by the State Assessment Panel, technical assessments and placement in employment, military or higher education.

Districts/BOCES seeking CTE program approval would be required to conduct a self-study, involving their faculty and staff, based on Department criteria. This process of program approval would also require validation by an external team. This external team of local, State and/or regional experts would be composed of, but not limited to, educators, labor, business and other community representatives. They would review the self-study and the CTE program content design to identify any gaps in the program as related to the State criteria and local needs. Districts/BOCES boards of education would certify that the process has been followed and that program improvement needs identified have been or will be addressed in order that the CTE program meets State criteria. Program approval would be granted by the Department to local boards of education based on evidence of program quality and effectively addressing all program design criteria.

This process of program approval results in reflection by local districts/BOCES on the CTE program design, validation by an external team of educators and businesspersons and review and approval by the

State Education Department. All of these steps would be accomplished using State CTE program design criteria and State learning standards as a guide.

Flexibility in the Delivery of Core Academic Courses

Throughout the public engagement process on the CTE proposal, flexibility in the delivery of courses was the element that received unanimous support. Flexibility is needed to provide students with time to pursue in-depth career and technical education programs, as well as complete core academic coursework. A number of options were offered as to how this could be achieved.

Flexibility in attaining course requirements can be achieved through fully integrated CTE programs of up to 7.5 units of study, through specialized CTE courses for each of the final units in English, science, mathematics and economics and government, or through a combination of integrated coursework through specialized CTE courses or academic courses. Students who have not yet passed a required Regents examination, or an alternative approved by the State Assessment Panel, would continue to take courses taught by a teacher certified in that subject.

In developing approvable CTE programs, districts/BOCES must require that all students:

- pass five required Regents examinations or alternatives approved by the State Assessment Panel;
- complete a minimum of 22 units of credit;
- complete a minimum of 14.5 units of credit academic core requirements; and
- complete a maximum of one unit in English, mathematics, science and economics and government through either a full integrated program with documentation of academic core requirements, specialized CTE courses or a combination of the two approaches (see Attachment B).

Specifically, the three approaches to fulfill academic requirements through approved CTE program are:

- specialized CTE courses;
- integrated academic/CTE courses; and
- a combination of the above approaches.

Specialized Courses

Specialized courses can be developed in English Language Arts, mathematics, science and economics and government and applied to a range of CTE program areas. These courses, which combine both academic and technical skills and knowledge, are individual courses. Each specialized course fulfills both an academic requirement and a unit of study credit within a CTE sequence. However, this course would count as one unit of credit on the student's transcript. These courses would be jointly planned and/or delivered by academic and/or career and technical education teachers. Examples of specialized courses include: Anatomy and Physiology (science), Avionics (mathematics), Business Communications (ELA), and Economics and Government Policy Related to Health Care (economics and government).

Integrated Courses

The integrated course approach can provide the greatest flexibility. An integrated course is one that delivers academic content within a CTE context. Students will be able to fulfill core academic graduation and CTE program sequence requirements through integrated and/or applied courses which include academic content. Examples include technical reading and report writing, as part of an Automotive Technology course; applied mathematics as part of an Electricity/Electronics course; business economics as part of a Retailing course; and applied physics as part of an Aviation Flight Dynamics course. These courses would be jointly planned and/or delivered by academic and/or career and technical education teachers. Programs which use this approach will have to create a curriculum map to document how the content of the integrated courses meets the Regents academic core requirements.

Combined Approach

The combined approach would be one that delivers a combination of both specialized and integrated courses. An example of this approach would include courses in Pre-Engineering, Mathematics, Science and Technology (MST), and a New Vision(s) Engineering program.

As part of the CTE program approval process, districts/BOCES will describe the flexibility approaches they wish to pursue and the appropriate documentation which will assure that the core academic requirements are being met within the CTE program for which they are seeking approval.

National experts have advised that considerable research and development needs to be invested into creating contextualized examinations. They recommended that New York State use the component retesting program as a means to pilot some contextualized test items, which the Department will pursue.

Work Skills Employability Profile

The work skills employability profile is intended to document student attainment of technical knowledge, work-related skills, endorsements and licenses. The work skills employability profile will be designed to connect with a student's career plan and goals. Validation of skills reported on the profile would include an employer/teacher review based on learning standards and expectations in the workplace. On an ongoing basis through their CTE program, as students successfully complete course/sequence requirements and meet industry standards based on a technical assessment, their knowledge and skills would be documented on a work skills employability profile.

Developed at the local district/BOCES, profiles would document work-based skills acquired throughout the high school experience. A work skills employability profile would provide important information to post secondary educators, military recruiters and employers.

Technical Assessments Based on Industry Standards

Technical assessments based on recognized industry and national standards are valuable tools for use in career and technical education programs. The results of these assessments will be used to document student performance based on the latest industry standards and provide feedback for local program improvement. The results will also be the foundation for a technical endorsement to the diplomas recognized by the Board of Regents. These assessments are available through national organizations such as the National Occupational Competency Testing Institute (NOCTI), Education Testing Service (ETS), and Cambridge International Examinations, usually at a modest price per student administration. If no technical examination exists in a particular field, local districts/BOCES may form a consortium to create an assessment which must be included as part of the program approval process. All technical assessments must include written examination(s), student projects and student demonstration(s) of technical skills.

The technical assessments are not intended as an additional "gate" to graduation, nor will students be required to pass a technical assessment. The intent of the technical assessment is to document a student's level of competency in his/her chosen CTE program. This documentation could be shared as part of the process for entrance into post secondary education or with a potential employer. To earn the technical endorsement on the Regents diploma, a passing score on the technical assessment would be required.

Technical Endorsement on Regents Diploma and Regents Diploma with Advanced Designation

A technical endorsement on the diploma would reflect student achievements. This would include:

- completion of all graduation requirements and CTE sequence requirements;
- passing a technical assessment; and
- passing the five required Regents examinations in English, mathematics, science and social studies, or alternatives approved by the State Assessment Panel.

Monitoring CTE Program Approval

The purpose of statewide monitoring is to assure that approved career and technical education programs are carrying out their program design as described in their application. The monitoring would also ensure that students in these programs are provided adequate opportunity to meet graduation and assessment requirements, and that they participate in quality CTE program courses and sequences.

The implementation of an effective monitoring strategy requires both State and local providers to fulfill a number of responsibilities, as detailed below.

State responsibilities would include:

- establishing criteria/standards for local collection and reporting of student performance in academic and technical skills areas;
- establishing guidelines for determining quality career and technical education programs;
- re-approving programs based on the review of local assurances and the analysis of student performance data;
- providing technical assistance as appropriate; and
- conducting a series of site visits each year.

Local responsibilities would include:

- collecting, maintaining and making available on request data on student academic and technical performance consistent with SED standards, and other such program data as may be required in each approved CTE program;
- using student performance data to guide program improvement;
- involving the self-study committee and external committee in data analysis, program review and approval and re-approval; and
- including, for BOCES CTE approvals, representatives from component districts on the external self-study committee.

Attachment A

Development of the Career and Technical Education (CTE) Proposal

In December 1997, the Board of Regents adopted revised graduation requirements requiring students entering grade 9 in 2001 and thereafter to earn 22 units of credit and to take and pass five Regents examinations in order to graduate from high school. The Regents examinations are aligned with the State's learning standards adopted by the Regents in July 1996. In June 1999, the Regents began discussion of the relationship of career and technical education programs to the revised graduation requirements and directed Department staff to create an Advisory Panel to identify models for integrated academic and career and technical education and a means for assessing both skills. The drive for higher standards in career and technical education reflects the realization that the world of work is changing rapidly, and the business community has made it clear that too many students are completing their secondary education lacking the skills needed to succeed in employment and post secondary education.

The National Advisory Panel on Career and Technical Education was formed in fall 1999 and was composed of experts in integrating academic and technical instruction, including researchers and teachers; experts in assessment; representatives of business and labor; representatives of higher education; and other interested persons such as administrators, counselors and advocates. A series of Focus Forums were also held to help inform and be informed by the deliberations of the National Advisory Panel. These two groups were charged with developing recommendations related to:

- strategies and methods for integrating academic and technical instruction to maximize time and flexibility;
- strategies and methods for assessing students who have received integrated academic and technical instruction; and
- diploma options (e.g., endorsements, certifications) for students completing sequences of career and technical education programs.

The Focus Forums and National Advisory Panel met through the last quarter of 1999 and the first half of 2000 and engaged national assessment experts, members of business and industry, parents and State and national educators. The deliberations culminated in a proposal for certification and re certification of career and technical education, with the following key elements:

- certification and re-certification of career and technical education programs based on criteria established by the Department;
- flexibility for delivery of core academic courses;
- a technical assessment component based on industry standards;
- a technical endorsement on a Regents diploma, or on a Regents diploma with advanced designation; and
- a work skills certification and employability profile for students successfully completing a technical assessment.

This proposal was submitted to the Board of Regents in June 2000 for consideration in determining what modifications would be necessary to the revised graduation requirements in order to provide quality career and technical education programs in schools and BOCES as a first-choice option for students to achieve the State learning standards. This alternate path to achieving the State's learning standards would provide an opportunity for students to acquire academic skills, fulfill graduation requirements, pass required assessments, and obtain the career and technical skills needed for employment and/or post secondary education.

The Board of Regents directed the Department to conduct public engagement strategies to help shape and support the final CTE proposal. The public engagement strategies included the following:

- A public policy conference sponsored by the Board of Regents entitled "Upgrading the Career and Technical Education System" was convened in September 2000 with over 120 participants representing career and technical education associations, the New York State United Teachers, the New York State School Boards Association, professional education groups, etc.
- Three focus groups were convened in Grand Island, Lake Placid, and Yonkers to review and respond to the elements of the CTE proposal. These groups were composed of 75 participants representing students, parents, educators, business and industry, school counselors, higher education and school administrators.
- Approximately 42,000 copies of the CTE proposal and a response form were mailed to individuals and groups representing school administrators, teachers, parents, business/industry, chambers of commerce, local workforce investment boards, directors of library systems, school boards, school counselors, post secondary institutions, special education, adult education programs, labor, student leadership development organizations and public agencies involved in workforce development programs.
- A survey for high school age students and adults was added to the Department of Labor's "CareerZone" web site and provided input from CTE consumers. This survey resulted in over 2,200 responses and they clearly indicated more time in student schedules was needed to allow students to enroll in CTE courses.
- Between July and December 2000, Department staff were involved in direct engagement activities through over 100 presentations about the CTE proposal to approximately 8,500 individuals representing a diverse range of educational organizations, including administrators and school counselors.
- Seven CTE regional conferences were conducted by the Office of Workforce Preparation and Continuing Education throughout the State from October through November 2000 and featured a keynote overview and perspective on the CTE proposal. Three separate breakout sessions at each conference were dedicated to receiving comments and suggestions on the proposal and its specific elements. Researchers from the Evaluation Consortium at the University of Albany attended these meetings and documented and analyzed the over 500 written replies solicited at the Regional Conference to a series of questions on the elements of the proposal. Comments on various aspects of the proposal from representatives of business, school districts, the community, parents and

others provided suggestions that supported increased flexibility (90 percent), establishing a program approval process (77 percent), working closely with business and industry to assure assessments reflect valuable industry skills and standards (97 percent), and the work skills and employability profile (82 percent).

A parent wrote, "I like to think that my voice, my work, and my participation in processes like the one you have undertaken with regard to reform might contribute to creating a community and economy that will no longer accept -- in theory or practice -- that any student could be under-prepared for success and achievement in post secondary education or not at all prepared for entry level career positions."

A President of a Community College recommended that "all students must meet the New York State Learning Standards, receive a Regents diploma, pass five Regents examinations, and meet technical work standards and skills. Align and sequence programs to meet and foster articulation agreements for post secondary requirements."

A businessperson wrote "For the majority of students, the standards, the required Regents tests, and the increased graduation requirements should increase the challenge of education (and therefore the amount of learning taking place) while still allowing them to be successful. That's exactly what we need to do if we are going to have a workforce of the quality necessary for New York State to remain competitive in the global economic arena."

- Alternative proposals and/or suggestions for modifying the proposal, especially relating to implementation, were received from a variety of individuals and organizations, including the District Superintendents, career and technical education directors, BOCES organizations, post secondary institutions, career and technical educational associations, business/industry affiliated groups, and boards of directors of student leadership organizations. Alternative proposals were received from the District Superintendents, School Administrators Association of New York State, and New York State United Teachers. In general, support was received for developing and maintaining high quality CTE programs and creating flexibility of program / instructional delivery. Modifications to the June 2000 proposal based on the comments are reflected in the final proposal as it relates to using integrated and specialized courses to fulfill academic core credit requirements and, at the same time, meeting CTE sequence requirements.

ATTACHMENT B

MODIFIED GRADUATION REQUIREMENTS FOR CAREER AND TECHNICAL EDUCATION

(Career and Technical Education (CTE) Sample Approved Programs)

5 Regents Exams/Approved Alternatives

Core Course Requirements	Current Graduation Requirements (Students Entering Grade 9 in 2001)	Fully Integrated Approach	Specialized Course Approach (Maximum 4)	Combined Integrated and Specialized Course Approach
English	4	3	3	3
Social Studies	4	3	3	3
Mathematics	3	2	2	2
Science	3	2	2	2
Physical Education (PE)	2	2	2	2
Art / Music	1	1	1	1
Health	0.5	0.5	0.5	0.5

Core Course Requirements	Current Graduation Requirements (Students Entering Grade 9 in 2001)	Fully Integrated Approach	Specialized Course Approach (Maximum 4)	Combined Integrated and Specialized Course Approach
LOTE	1	1	1	1
Units of Credit	18.5	14.5	14.5	14.5
Additional Units of Credit:		CTE Sequence: 3.5	CTE Sequence: 3.5	CTE Sequence: 3.5
(Sequence / Electives)	3.5	CTE /Integrated Academic: 4.0*	CTE /Specialized Courses: 4.0**	CTE /Combined Integrated and Specialized Courses: 4.0***
Total Units of Credit	22	22	22	22

*Curriculum map would document how, through a fully integrated program, students will fulfill the core requirements in English, Science, Mathematics and Economics and Government

**1 specialized English, 1 specialized Mathematics, 1 specialized Science, 1 specialized Economics and Government

***1 specialized English, 1 specialized Economics and Government, 2 integrated Mathematics / Science / Technology

Implementation of Career and Technical Education Proposal

(February 6, 2000)

Phase 1

- State Responsibilities
 - Inform school districts and BOCES about this option through written materials, Internet information and regional meetings.
 - Establish criteria for the program approval process.
 - Ensure that all school districts and BOCES understand the criteria and encourage them to apply for program approval.
 - Identify individuals who can serve on external committees as part of the program approval process.
 - Develop regulatory implementation language, including flexibility in meeting course requirements and a technical endorsement on the Regents diploma, so that this option will be in place beginning September 2001.
 - Develop model formats for districts and BOCES to use to map integrated career and technical and academic curriculum to State standards.
 - Work jointly with professional developers to help school districts and BOCES to develop integrated and specialized courses and understand the curriculum mapping process.
 - Identify and disseminate examples of integrated and specialized courses that meet the State standards and models for the work skills employability profile.
 - Identify and disseminate information on technical assessments that test the skills of students against industry standards.

- Conduct workshops for school districts and BOCES on these assessments and help school districts and BOCES understand the standards for developing technical assessments on a regional basis where none have been developed by industry.
- Local Responsibilities
 - Conduct a program review process using criteria established by the Department including an internal review of the programs utilizing academic and technical faculty and staff, as well as an external review by educators and representatives of business.
 - Provide curriculum maps to demonstrate that integrated and specialized courses meet State standards.
 - Provide documentation to the Department that the program review has been conducted and the board of education has acted.
 - Conduct professional development for teachers for implementation of career and technical education programs.

Phase 2

- State Responsibilities
 - Continue to monitor developments in technical assessments and contextualized assessments and keep the Regents informed of any new developments in these areas.
 - Use the component retesting process to develop a bank of items that have career and technical education content and measure subject area knowledge and skills. These items will be piloted and made available for use by school districts and BOCES when they meet State standards for reliability and validity.
 - Help school districts, including New York City, and BOCES to identify external examinations for approval as alternatives to the Regents examinations.
 - Consult with other states, testing companies, major corporations, labor unions and schools across the country to identify alternative assessments and integrated curriculum models.
 - Identify an individual familiar with contextualized testing to be appointed as a member of the State Assessment Panel.
 - Research and identify sources for funding of technical and contextualized assessments, including contacting foundations, business and the federal government.
- Local Responsibilities
 - Propose external examinations for review by the State Assessment Panel for approval as alternatives to the Regents examinations.
 - Monitor data on student achievement to ensure continued program improvement.

